

CONTRACT CHANGE ORDER NO. 044 SUPPL. NO. ---
ROAD 04-SF-80-13.2, 13.9 SHEET 3 OF 92 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

Special Provisions changes:

I. CONDUIT AND CABLE TRAY SUPPORTS

1. In the Special Provisions, Section 10-3.08, "SUPPORT HARDWARE FOR CONDUITS, CABLE TRAYS AND WIREWAYS," the subparagraph "CONDUIT AND TRAY SUPPORTS" is revised as follows:

CONDUIT AND TRAY SUPPORTS

Conduit and tray support brackets, as shown on the plans, shall conform to the provisions in Section 75-1.03, "Miscellaneous Bridge Metal," of the Standard Specifications and these special provisions.

Single strut channel (41 mm wide by 82.6 mm high) shall be shop welded to the diaphragm for supporting conduits in the traffic barriers on the bridge girders where pull box is to be installed. Single strut channel (41 mm square) shall be used to support pull boxes in the traffic barriers. Single strut channel (41 mm square) shall be used to support conduits in the traffic barriers where pull box is not used. Single strut channel shall be shop welded to the stiffener to support the vertical cable trays in the tower T1, except at splice locations where double strut channel shall be bolted to the stiffener. The strut channel shall be constructed from 2.7 mm galvanized steel, length as indicated. The single strut channel shall be equivalent to Unistrut P1000 and double strut channel P5000 in the traffic barrier and P1001 in the tower.

The anchoring and supports of trays shown on the plans are designed to Seismic Zone 4 requirements. The Contractor shall determine the construction methods for Seismic Zone 4 conduit supports at each support location, including location and length of support channel. Once determined, the Contractor shall submit to the Engineer for review and approval at least 30 days prior to ordering or fabrication of conduit supports.

The Engineer will consult with the Structural Engineer of Record prior to approving concrete anchors requiring a depth of greater than 40 mm. Therefore it is recommended that support channels be embedded in the pre-fabricated concrete girder sections, during manufacture, for all trays and all major conduit runs. The following tray and conduit weight tables shall be used by the Contractor for determining the spacing of supports. The tables show the maximum probable mass of insulated copper conductors assuming maximum tray and conduit fill.

Conduit size in mm:	41	53	63	78	103
Mass in kg/m:	6.15	9	12.9	18.75	28.5

Tray size in mm:	305	610	762
Mass in kg/m:	37.5	75	93.75

Maximum tray support span shall be 4.74 meters.
Maximum conduit support span shall be 3.0 meters.

